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10/660,534	09/12/2003	Martin Soukup	71493-1141 /aba	5333

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SMART & BIGGAR  
P.O. BOX 2999, STATION D  
900-55 METCALFE STREET  
OTTAWA, ON K1P5Y6  
CANADA

EXAMINER
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INGBERG, TODD D

ART UNIT	PAPER NUMBER
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2193

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/660,534	<b>Applicant(s)</b> SOUKUP, MARTIN	
	<b>Examiner</b> Todd Ingberg	<b>Art Unit</b> 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/03, 11/03</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Claims 1 – 15 have been examined.

#### ***Information Disclosure Statement***

1. Information Disclosure Statements were filed September and November of 2003.
2. The November submission has been considered the September submission has not been considered. The title, author and number of pages are missing and required.

#### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Legal words like “method” and “apparatus” as present should be removed.

#### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 – 15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result. No physical transformation is recited and additionally, the final result of the claim is a wrapper which is not a tangible result because the results are not written or updated or displayed on a computer readable medium which would make the claim tangible. The

following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101.

[http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\\_20051026.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf)

### ***Claim Objections***

5. Claims 5,6 and 12-14 objected to because of the following informalities: More than one period is present in these claims, appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1- 6 and 10 -15 are rejected under 35 U.S.C. 102(b) as being anticipated by Template Software.

The **Template** product line contains:

The SNAP programming language

The Workflow Template

The Web Component

These three layered products work together.

The documentation sets for the products contains the following manuals.

**SNAP** released June 1997

SNAP Language Reference ( Not used in this Office Action)

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Using the SNAP Language ( Not used in this Office Action)

Using the SNAP Communication Component (Referred to as **COM** )

Using the SNAP Graphic User Interface Component ( Not used in this Office Action)

Getting Started with SNAP ( Not used in this Office Action)

Using the SNAP Display Editors ( Not used in this Office Action)

SNAP Class Library Reference ( Not used in this Office Action)

Using the SNAP External Application Software Component ( Not used in this Office Action)

Using the SNAP Development Environment (Referred to as **SNAP** )

SNAP Module Library Reference ( Not used in this Office Action)

Using the SNAP Permanent Storage Component (Referred to as **PREM** )

**Workflow** released September 1997

Developing a WFT Workflow System ( Not used in this Office Action)

Using the WFT Development Environment ( Not used in this Office Action)

WFT Library Reference ( Not used in this Office Action)

**Web Component**

Using the Web Component (Referred to as **WEB** )

Since, these products work together they constitute a single reference and can be used as the basis for a rejection based on anticipated by a product offering.

**Claim Interpretation**

Applicant has the term “ELSE” present in the claim. The term is interpreted to mean “OR”.

**Claim 1**

Template anticipates for a software application that uses a first interface related to a first piece of software code (SNAP, Chapters 5 – 7, PERM, Chapters 2 – 4, COM, Chapters 3 – 7 – teach the SIB connection and Schema Mapping – see COM, page 4-2 to 4-3 for overview of class model and PERM, page page 3-11 for basics on Mapping and for details on the OO tools involved see SNAP, pages 5-8 to 5-10 for SIB editor and SNAP, page 6-10 for Schema mapping), a method of migrating the software application to allow the software application to use a second interface instead of the first interface (PERM, pages 3-28 to 3-29 – Changing the SIB connection and leaving the mapping in place – e.g. change from ODBC SIB connection to Oracle ), the method comprising:

- creating a computer-readable mapping between the first interface and the second interface (SIB connection as per above);

- running the mapping through an auto-generator, wherein the auto-generator uses the mapping to automatically generate an interface wrapper (SIB editor as per above);

- replacing the first interface and the first piece of software code with the interface wrapper (Changing the SIB connection as per above), thereby interposing the interface wrapper between the software application and the second interface (Keeping the schema mapping as per above and changing the SIB);

wherein the interface wrapper allows the software application to communicate with the second interface instead of the first interface (New SIB connection and same mapping as per above).

**Claim 2**

The method of claim 1, wherein the interface wrapper provides for at least one of

- (a) forward compatibility wherein the interface wrapper allows the software application to transparently communicate with the second interface (SIB connection as per claim 1) and
- (b) backward compatibility wherein the interface wrapper allows the second interface to transparently communicate with the software application (Schema mapping as per claim 1).

**Claim 3**

The method of claim 2, wherein for forward compatibility, creating the computer-readable mapping comprises creating a mapping from the first interface to the second interface. As per claim 1.

**Claim 4**

The method of claim 2, wherein for backward compatibility, creating the computer-readable mapping comprises creating a mapping from the second interface to the first interface. As per claim 1.

**Claim 5**

The method of claim 1, wherein the auto-generator, in an object-oriented environment (Template is object oriented including SIB of claim 1), is software comprising the following instructions:

- a) for each class in the first interface (SNAP, Chapter 6, Database Mapping Editor – see page 6-10)

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- a.1) from all classes to be included in the interface wrapper mapped from the class in the first interface, select a master class to hold handles to all other classes in the interface wrapper mapped from the class in the first interface (SNAP, page 6-10);
- b) for each class to be included in the interface wrapper as set out in the computer-readable mapping (SIB and Schema mapping of claim 1)
  - b.1) if the class to be included in the interface wrapper is the master class, initialize all the handles in the master class (SIB connection is object oriented – instantiation by definition part of OO);
  - b.2) for each attribute in the class to be included in the interface wrapper (SNAP, page 6-10, attr in Figure)
    - b.2.1) add code from the computer-readable mapping related to the attribute to the class to be included in the interface wrapper (SNAP, page 6-10, Mapping in Figure);
  - b.3) for each method in the class to be included in the interface wrapper (SNAP, page 6-10, part of class Mapped by definition classes are attributes and methods)
    - b.3.1) add code from the computer-readable mapping related to the method to the class to be included in the interface wrapper (SNAP, page 6-10 to 6-11).

#### Claim 6

The method of claim 1, wherein the auto-generator, in an object-oriented environment, is software comprising the following instructions for each class to be included in the interface wrapper as set out in the computer-readable mapping: a) define the class to be included in the interface wrapper

b) for each class from the first interface mapped to the class to be included in the interface wrapper as set out in the computer readable mapping:

b.1) if the class from the first interface is mapped only to the class to be included in the interface wrapper

b.1.1) add a member for the class from the first interface to the class to be included in the interface wrapper;

b.1.2) add construction of the member to all constructors in the class to be included in the interface wrapper; See the rejection for claim 5

#### **END of Limitations ELSE means OR**

b.2) **else** if the class to be included in the interface wrapper is the first of all classes in the interface wrapper mapped from the class from the first interface as set out in the computer-readable mapping:

b.2.1) designate the class to be included in the interface wrapper as a master class to hold handles to all other classes in the interface wrapper mapped from the class in the first interface;

b.2.2) add a member for the class from the first interface to the class to be included in the interface wrapper;

b.2.3) add construction of the member to all constructors in the class to be included in the interface wrapper;

b.2.4) for each other class in the interface wrapper mapped from the class from the first interface

b.2.4.1) add a member for the other class in the interface wrapper to the master class;

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b.2.4.2) add construction of the other class in the interface wrapper to all constructors in the master class;

b.2.4.3) add a call to initialize the member wherein the member will know that the class to be included in the interface wrapper is the master class in all constructors of the other class in the interface wrapper;

b.2.4.4) add a method to the other class in the interface wrapper to retrieve the member by a type name of the other class;

**b.3) else**

b.3.1) add a member for the master class to the class to be included in the interface wrapper;

b.3.2) add a method to the class to be included in the interface wrapper to allow the member to be initialized to point to the master class;

b.3.3) add a method to the class to be included in the interface wrapper to retrieve the member;

c) for each attribute in the class to be included in the interface wrapper

c.1) add code from the computer-readable mapping related to the attribute to the class to be included in the interface wrapper;

d) for each method in the class to be included in the interface wrapper

d.1) add code from the computer-readable mapping related to the method to the class to be included in the interface wrapper.

**Claim 10**

The method of claim 1, wherein the software application is migrated from the first interface to the second interface without modifying the software application. As per the rejection for claim 1 – changing the SIB connection.

**Claim 11**

Template anticipates a system adapted to assist with the migration of a software application from a first interface to a second interface, the system comprising a processing platform and a computer-readable medium comprising auto-generation software, the system being adapted to receive a computer readable mapping from the first interface to the second interface, the processing platform being adapted to execute instructions of the auto-generation software to process the mapping to produce an interface wrapper wherein the interface wrapper allows the software application to transparently communicate with the second interface. As per claim 1.

**Claim 12**

The system of claim 11, wherein the instructions of the auto-generation software comprises the following instructions:

a) for each class in the first interface

a.1) from all classes to be included in the interface wrapper mapped from the class in the first interface, select a master class to hold handles to all other classes in the interface wrapper mapped from the class in the first interface;

b) for each class to be included in the interface wrapper as set out in the computer-readable mapping

b.1) if the class to be included in the interface wrapper is the master class, initialize all the handles in the master class;



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- b.2) for each attribute in the class to be included in the interface wrapper
  - b.2.1) add code from the computer-readable mapping related to the attribute to the class to be included in the interface wrapper;
- b.3) for each method in the class to be included in the interface wrapper
  - b.3.1) add code from the computer-readable mapping related to the method to the class to be included in the interface wrapper. As per the rejections for claims 1 and 5.

### **Claim 13**

The system of claim 11 wherein the instructions from the auto-generation software comprises the following instructions:

-for each class to be included in the interface wrapper as set out in the computer-readable mapping:

- a) define the class to be included in the interface wrapper
- b) for each class from the first interface mapped to the class to be included in the interface wrapper as set out in the computer readable mapping:
  - b.1) if the class from the first interface is mapped only to the class to be included in the interface wrapper:
    - b.1.1) add a member for the class from the first interface to the class to be included in the interface wrapper;
    - b.1.2) add construction of the member to all constructors in the class to be included in - the interface wrapper;

As per the rejections for claims 1 and 5.

**END of Limitations ELSE means OR**

- b.2) **else** if the class to be included in the interface wrapper is the first of all classes in the interface wrapper mapped from the class from the first interface as set out in the computer-readable mapping:
  - b.2.1) designate the class to be included in the interface wrapper as a master class to hold handles to all other classes in the interface wrapper mapped from the class in the first interface;
  - b.2.2) add a member for the class from the first interface to the class to be included in the interface wrapper;
  - b.2.3) add construction of the member to all constructors in the class to be included in the interface wrapper;
  - b.2.4) for each other class in the interface wrapper mapped from the class from the first interface
    - b.2.4.1) add a member for the other class in the interface wrapper to the master class;
    - b.2.4.2) add construction of the other class in the interface wrapper to all constructors in the master class;
    - b.2.4.3) add a call to initialize the member wherein the member will know that the class to be included in the interface wrapper is the master class in all constructors of the other class in the interface wrapper;
    - b.2.4.4) add a method to the other class in the interface wrapper to retrieve the member by a type name of the other class;
- b.3) **else**

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- b.3.1) add a member for the master class to the class to be included in the interface wrapper;
- b.3.2) add a method to the class to be included in the interface wrapper to allow the member to be initialized to point to the master class;
- b.3.3) add a method to the class to be included in the interface wrapper to retrieve the member;
- c) for each attribute in the class to be included in the interface wrapper
- c.1) add code from the computer-readable mapping related to the attribute to the class to be included in the interface wrapper;
- d) for each method in the class to be included in the interface wrapper
- d.1) add code from the computer-readable mapping related to the method to the class to be included in the interface wrapper.

#### **Claim 14**

Template anticipates a computer-readable medium containing instructions for automatically generating an interface wrapper to facilitate migration of a software application from a first interface to a second interface, wherein, given a computer readable mapping from the first interface to the second

interface, the instructions comprise:

- a) for each class in the first interface
  - a.1) from all classes to be included in the interface wrapper mapped from the class in the first interface, select a master class to hold handles to all other classes in the interface wrapper mapped from the class in the first interface;
- b) for each class to be included in the interface wrapper as set out in the computer-readable mapping
  - b.1) if the class to be included in the interface wrapper is the master class, initialize all the handles in the master class;
  - b.2) for each attribute in the class to be included in the interface wrapper
    - b.2.1) add code from the computer-readable mapping related to the attribute to the class to be included in the interface wrapper;
  - b.3) for each method in the class to be included in the interface wrapper
    - b.3.1) add code from the computer-readable mapping related to the method to the class to be included in the interface wrapper. As per the rejection for claims 1 and 5.

#### **Claim 15**

Template anticipates a computer-readable medium containing instructions for automatically generating an interface wrapper to facilitate migration of a software application from a first interface to a second interface, wherein, given a computer readable mapping from the first interface to the second

interface, the instructions comprise:

- for each class to be included in the interface wrapper as set out in the computer-readable mapping, a) define the class to be included in the interface wrapper
- b) for each class from the first interface mapped to the class to be included in the interface wrapper as set out in the computer readable mapping
  - b.1) if the class from the first interface is mapped only to the class to be included in the interface wrapper

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b.1.1) add a member for the class from the first interface to the class to be included in the interface wrapper;

b.1.2) add construction of the member to all constructors in the class to be included in the interface wrapper;

class in all constructors of the other class in the interface wrapper;

b.2.4.4) add a method to the other class in the interface wrapper to retrieve the member by a type name of the other class;

As per the rejection for claims 1 and 5.

**END of Limitations ELSE means OR**

**b.3) else**

b.3.1) add a member for the master class to the class to be included in the interface wrapper;

b.3.2) add a method to the class to be included in the interface wrapper to allow the member to be initialized to point to the master class;

b.3.3) add a method to the class to be included in the interface wrapper to retrieve the member;

c) for each attribute in the class to be included in the interface wrapper

c.1) add code from the computer-readable mapping related to the attribute to the class to be included in the interface wrapper;

d) for each method in the class to be included in the interface wrapper

d.1) add code from the computer-readable mapping related to the method to the class to be included in the interface wrapper.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Template in

view of Enterprise Application Integration with XML and JAVA, by J.P. Morgenthal et al,

2001, Chapter 5.

### **Claim 7**

The method of claim 1, wherein the software application, the first interface and the second interface are written in the Java language. Template teaches the use of the object oriented programming language SNAP (SNAP, Chapter 5, 6 and 7) but does not teach the use of the programming language JAVA.

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It is XML that teaches the use of JAVA for application integration (XML, page 97). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to alter Template to replace the SNAP language with JAVA, because non proprietary programming languages are more marketable.

**Claim 8**

The method of claim 1, wherein the computer readable mapping is written in a language selected from one of XML and UML. Template teaches the use of HTML (Web, page 4-33) not XML. It is XML that teaches the use of XML for application integration (XML, page 97). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to alter Template to replace the HTML language with XML, because being able to define your own tags makes hypertext markup languages for flexible.

**Claim 9**

The method of claim 1, wherein the auto-generator is software written in a form selected from one of XSL templates, bean script and XDoclet. As per claim 8 – XSL templates are inherent in XML.

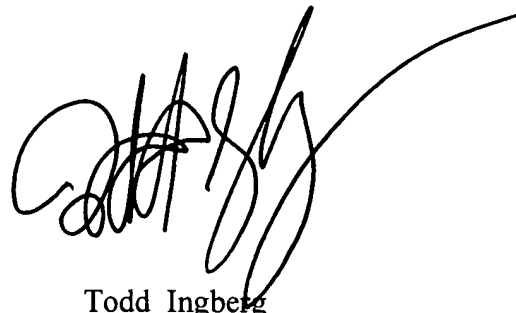
***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd Ingberg whose telephone number is (571) 272-3723. The examiner can normally be reached on during the work week..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Todd Ingberg', with a long, sweeping horizontal line extending to the right.

Todd Ingberg  
Primary Examiner  
Art Unit 2193

TI